Contents

Acknowledgement to Referees 323

Aickin, C. C., Vermuë, N. A.
Microelectrode Measurement of Intracellular Chloride Activity in Smooth Muscle Cells of Guinea-Pig Ureter 25

Aksentsev, S. L., Rakovich, A. A., Okoon, I. M., Konev, S. V., Orlov, S. N., Kravtsov, G. M.
Effect of Tetracaine on Veratrine-Mediated Influx of Sodium into Rat Brain Synaptosomes 135

Angielski, S., Le Hir, M., Dubach, U. C.
Transport of Adenosine by Renal Brush Border Membranes 75

Argibay, J. A., Dutey, P., Ildefonse, M., Ojeda, C., Rougier, O., Tourneur, Y.
Block by Cs of K Current i_{K1} and of Carbachol Induced K Current i_{Cch} in Frog Atrium 295

Arner, A.
Force-Velocity Relation in Chemically Skinned Rat Portal Vein. Effects of Ca^{2+} and Mg^{2+} 6

Benessiano, J., Levy, B., Samuel, J. L., Leclercq, J. F., Safar, M., Saumont, R.
Circadian Changes in Heart Rate in Unanesthetized Normotensive and Spontaneously Hypertensive Rats 70

Berthoud, H.-R., see Sauter, J.-F., et al. 68

Biber, J., see Stieger, B., et al. 106

Blackburn, N. A., Johnson, I. T.
The Influence of Guar Gum on the Movements of Inulin, Glucose and Fluid in Rat Intestine During Perfusion in vivo 144

Blumgart, L. H., see Mathie, R. T. 152

Brasseur, L., see Nemery, B., et al. 57

Breemen, C. van, see Saida, K. 166

Brink, H. M., Moons, W. M., Siegers, J. F. G.
Glomerular Filtration in the Isolated Perfused Kidney. I. Sieving of Macromolecules 42

Brink, H. M., Moons, W. M., Siegers, J. F. G.
Glomerular Filtration in the Isolated Perfused Kidney. II. Glomerular Hemodynamics 48

Bünger, R., Permanetter, B., Yaffe, S.
Energy Utilization and Pyruvate as Determinants of Pyruvate Dehydrogenase in Norepinephrine-Stimulated Heart 214

Busse, R., Pohl, U., Kellner, C., Klemm, U.
Endothelial Cells are Involved in the Vasodilatory Response to Hypoxia 78

Butcher, F. R., see Spearman, T. N. 220

Camus, J.-C., see Chatelain, P., et al. 100

Carmeliet, E., see Isenberg, G., et al. 251

Cassano, G., Leszczynska, B., Murer, H.
Transport of L-Lysine by Rat Intestinal Brush Border Membrane Vesicles 114

Chatelain, P., Robberecht, P., Waelbroeck, M., De Neef, P., Camus, J.-C., Huu, A. N., Roba, J., Christophe, J.
Topographical Distribution of the Secretin- and VIP-Stimulated Adenylate Cyclase System in the Heart of Five Animal Species 100

Chicheportiche, R., see Jaimovich, E., et al. 1

Christophe, J., see Chatelain, P., et al. 100

Corman, B., Di Stefano, A.
Does Water Drag Solutes Through Kidney Proximal Tubule? 35

Dantzler, W. H., see Laverty, G. 232

Deitmer, J. W., Schlue, W. R.
Intracellular Na^+ and Ca^{2+} in Leech Retzius Neurones During Inhibition of the Na^+-K^+ Pump 195

De Neef, P., see Chatelain, P., et al. 100

Di Stefano, A., see Corman, B. 35

Doležal, V., Vyskočil, F., Tuček, S.
Decrease of the Spontaneous Non-Quantal Release of Acetylcholine from the Phrenic Nerve in Botulinum-Poisoned Rat Diaphragm 319

Dubach, U. C., see Angielski, S., et al. 75

Dudel, J., see Stettmeier, H., et al. 13, 20

Dutey, P., see Argibay, J. A., et al. 295

Feigl, E. O., see Ito, B. R. 160

Finger, W.
Effects of Glycine on the Crayfish Neuromuscular Junction. I. Glycine-Operated Inhibitory Postsynaptic Channels and a Glycine-Effected Decrease in Membrane Conductance 121

Finger, W.
Effects of Glycine on the Crayfish Neuromuscular Junction. II. Release of Inhibitory Transmitter Activated by Glycine 128

Finger, W., see Stettmeier, H., et al. 13, 20, 237

Frans, A., see Nemery, B., et al. 57

Ginneken, A. C. G. van, Jongsma, H. J.
Slow Inward Current in Aggregates of Neonatal Rat Heart Cells and its Contribution to the Steady State Current-Voltage Relationship 265

Golenhofen, K., see Milenov, K. 29

Gore, R. W., see Gray, S. D., et al. 209

Gray, S. D., McDonagh, P. F., Gore, R. W.
Comparison of Functional and Total Capillary Densities in Fast and Slow Muscles of the Chicken 209

Güth, K., see Stienen, G. J. M., et al. 272

Hamprecht, B., see Reiser, G. 260

Heusch, G., Yoshimoto, N.
Effects of Heart Rate and Perfusion Pressure on Segmental Coronary Resistances and Collateral Perfusion 284

Heyden, G. van der, see Isenberg, G., et al. 251

Hoppeler, H., see Zumstein, A., et al. 277

Hotta, K., see Oba, T. 243

Howald, H., see Zumstein, A., et al. 277

Hu, S. L., Meves, H., Rubly, N., Watt, D. D.
A Quantitative Study of the Action of *Centruroides sculpturatus* Toxins III and IV on the Na Currents of the Node of Ranvier 90

Huijung, P. A., see Woittiez, R. D., et al. 73

Huu, A. N., see Chatelain, P., et al. 100

Ildefonse, M., see Argibay, J. A., et al. 295

Ildefonse, M., see Jaimovich, E., et al. 1

Irisawa, H., see Noma, A., et al. 190

Isenberg, G., Vereecke, J., Heyden, G. van der, Carmeliet, E.
The Shortening of the Action Potential by DNP in Guinea-Pig Ventricular Myocytes is Mediated by an Increase of a Time-Independent K Conductance 251

Ito, B. R., Feigl, E. O.
Technique for Producing Heart Block in Closed-Chest Dogs Without Electrical Recording 160

Jaimovich, E., Chicheportiche, R., Lombet, A., Lazdunski, M., Ildefonse, M., Rougier, O.
Differences in the Properties of Na^+ Channels in Muscle Surface and T-Tubular Membranes Revealed by Tetrodotoxin Derivatives 1

Jeanrenaud, B., see Sauter, J.-F., et al. 68

Johnson, I. T., see Blackburn, N. A. 144

Jongsma, H. J., see Ginneken, A. C. G. van 265

Kellner, C., see Busse, R., et al. 78

Klemm, U., see Busse, R., et al. 78

Kocsis, J. D., see Malenka, R. C., et al. 176

Konev, S. V., see Aksentsev, S. L., et al. 135

Kravtsov, G. M., see Aksentsev, S. L., et al. 135

Latta, R., see Van der Kloot, W. 85

Laverty, G., Dantzler, W. H.
Micropuncture Study of Urate Transport by Superficial Nephrons in Avian (*Sturnus vulgaris*) Kidney 232

Lazdunski, M., see Jaimovich, E., et al. 1

Lazdunski, M., see Wheeler, K. P., et al. 164

Lechner, A. J., Sherrill, D. L., Virtue, W.
Quantitative Recovery of Expired Nitrogen and Nitrous Oxide from Venous Gas Emboli 225

Leclercq, J. F., see Benessiano, J., et al. 70

Le Hir, M., see Angielski, S., et al. 75

Lehouelleur, J., Noireaud, J., Schmidt, H.
Distribution of Acetylcholine-Sensitivity in Frog Slow Muscle Fibres 300

Leszczynska, B., see Cassano, G., et al. 114

Leusen, I., see Van de Voorde, J. 290

Levy, B., see Benessiano, J., et al. 70

Lohse, J., Schmidt, D., Sarles, H.
Pancreatic Citrate and Protein Secretion of Alcoholic Dogs in Response to Graded Doses of Caerulein 141

Lombet, A., see Jaimovich, E., et al. 1

Malenka, R. C., Kocsis, J. D., Waxman, S. G.
The Supernormal Period of the Cerebellar Parallel Fibers. Effects of $[Ca^{2+}]_o$ and $[K^+]_o$ 176

Marumo, F., see Shimada, H., et al. 169

Mathie, R. T., Blumgart, L. H.
Effect of Denervation on the Hepatic Haemodynamic Response to Hypercapnia and Hypoxia in the Dog 152

Mathieu, O., see Zumstein, A., et al. 277

Matsuda, H.
Effects of Intracellular Calcium Injection on Steady State Membrane Currents in Isolated Single Ventricular Cells 78

McDonagh, P. F., see Gray, S. D., et al. 209

Mejsnar, J., Pácha, J.
Thermogenesis Due to Noradrenaline in Muscles Under Different Rates of Perfusion 149

Meves, H., see Hu, S. L., et al. 90

Milenov, K., Golenhofen, K.
Differentiated Contractile Responses of Gastric Smooth Muscle to Substance P 29

Mishina, T., see Shimada, H., et al. 169

Moons, W. M., see Brink, H. M., et al. 42, 48

Morad, M., see Poledna, J. 184, 190

Murer, H., see Cassano, G., et al. 114

Murer, H., see Stieger, B., et al. 106

Nemery, B., Nullens, W., Veriter, C., Brasseur, L., Frans, A.
Effects of Gas Density on Pulmonary Gas Exchange of Normal Man at Rest and During Exercise 57

Noireaud, J., see Lehouelleur, J., et al. 300

Noma, A., Morad, M., Irisawa, H.
Does the "Pacemaker Current" Generate the Diastolic Depolarization in the Rabbit SA Node Cells? 190

Nullens, W., see Nemery, B., et al. 57

Oba, T., Hotta, K.
The Effect of Changing Free Ca^{2+} on Light Diffraction Intensity and Correlation with Tension Development in Skinned Fibers of Frog Skeletal Muscle 243

Ojeda, C., see Argibay, J. A., et al. 295

Okoon, I. M., see Aksentsev, S. L., et al. 135

Orlov, S. N., see Aksentsev, S. L., et al. 135

Orlov, S. N., Pokudin, N. I., Postnov, Yu. V.
Calmodulin-Dependent Ca^{2+} Transport in Erythrocytes of Spontaneously Hypertensive Rats 54

Pácha, J., see Mejsnar, J. 149

Permanetter, B., see Bünger, R., et al. 214

Pette, D., see Reichmann, H., et al. 202

Pohl, U., see Busse, R., et al. 78

Pokudin, N. I., see Orlov, S. N., et al. 54

Poledna, J., Morad, M.
Effect of Caffeine on the Birefringence Signal in Single Skeletal Muscle Fibers and Mammalian Heart. Possible Mechanism of Action 184

Postnov, Yu. V., see Orlov, S. N., et al. 54

Rakovich, A. A., see Aksentsev, S. L., et al. 135

Reichmann, H., Srihari, T., Pette, D.
Ipsi- and Contralateral Fibre Transformations by Cross-Reinnervation. A Principle of Symmetry 202

Reiser, G., Hamprecht, B
Sodium-Channels in Nonexcitable Glioma Cells, Shown by the Influence of Veratridine, Scorpion Toxin, and Tetrodotoxin on Membrane Potential and on Ion Transport 260

Riley, M., Scholfield, C. N.
Diazepam Increases GABA Mediated Inhibition in the Olfactory Cortex Slice 312

Roba, J., see Chatelain, P., et al. 100

Robberecht, P., see Chatelain, P., et al. 100

Rougier, O., see Argibay, J. A., et al. 295

Rougier, O., see Jaimovich, E., et al. 1

Rozendal, R. H., see Woittiez, R. D., et al. 73

Rubly, N., see Hu, S. L., et al. 90

Rüdel, R., see Ruppersberg, J. P. 158

Rüegg, J. C., see Stienen, G. J. M., et al. 272

Ruppersberg, J. P., Rüdel, R.
A Simple Method for Controlling the Fluid Level in a Small Experimental Chamber During Slow and Rapid Fluid Exchange 158

Safar, M., see Benessiano, J., et al. 70

Saida, K., Breemen, C. van
A Possible Ca^{2+}-Induced Ca^{2+} Release Mechanism Mediated by Norepinephrine in Vascular Smooth Muscle 166

Samuel, J. L., see Benessiano, J., et al. 70

Sarles, H., see Lohse, J., et al. 141

Saumont, R., see Benessiano, J., et al. 70

Sauter, J.-F., Berthoud, H.-R., Jeanrenaud, B.
A Simple Electrode for Intact Nerve Stimulation and/or Recording in Semi-Chronic Rats 68

Schlue, W. R., see Deitmer, J. W. 195

Schmidt, H., see Lehouelleur, J., et al. 300

Schmidt, D., see Lohse, J., et al. 141

Scholfield, C. N., see Riley, M. 312

Sherrill, D. L., see Lechner, A. J., et al. 225

Shimada, H., Mishina, T., Marumo, F.
Effects of Guanine Nucleotides on Vasopressin-Induced Water Flow and Sodium Transport of the Frog Bladder 169

Siemen, D., Vogel, W.
Tetrodotoxin Interferes with the Reaction of Scorpion Toxin (*Buthus tamulus*) at the Sodium Channel of the Excitable Membrane 306

Slegers, J. F. G., see Brink, H. M., et al. 42, 48

Spearman, T. N., Butcher, F. R.
The Effects of Calmodulin Antagonists on Amylase Release from the Rat Parotid Gland in vitro 220

Srihari, T., see Reichmann, H., et al. 202

Stange, G., see Stieger, B., et al. 106

Stephenson, D. G., Williams, D. A.
Slow Amphibian Muscle Fibres Become Less Sensitive to Ca^{2+} with Increasing Sarcomere Length 248

Stettmeier, H., Finger, W.
Excitatory Postsynaptic Channels Operated by Quisqualate in Crayfish Muscle 237

Stettmeier, H., Finger, W., Dudel, J.
Glutamate Activated Postsynaptic Channels in Crayfish Muscle Investigated by Noise Analysis 13

Stettmeier, H., Finger, W., Dudel, J.
Effects of Concanavalin A on Glutamate Operated Postsynaptic Channels in Crayfish Muscle 20

Stieger, B., Stange, G., Biber, J., Murer, H.
Transport of L-Lysine by Rat Renal Brush Border Membrane Vesicles 106

Stienen, G. J. M., Güth, K., Rüegg, J. C.
Force and Force Transients in Skeletal Muscle Fibres of the Frog Skinned by Freeze-Drying 272

Topp, G.
Primary Lateral Line Response to Water Surface Waves in the Topminnow *Aplocheilus lineatus* (Pisces, Cyprinodontidae) 62

Tourneur, Y., see Argibay, J. A., et al. 295

Tuček, S., see Doležal, V., et al. 319

Van der Kloot, W., Latta, R.
How Elevated Extracellular Ca^{2+} Inhibits Quantal Acetylcholine Release at Frog Neuromuscular Junctions in High K^+ 85

Van de Voorde, J., Leusen, I.
Influence of Prostaglandin-Synthesis Inhibitors on Carbachol- and Histamine-Induced Vasodilatation in Perfused Rat Hindquarters 290

Vereecke, J., see Isenberg, G., et al. 251

Veriter, C., see Nemery, B., et al. 57

Vermuë, N. A., see Aickin, C. C. 25

Virtue, W., see Lechner, A. J., et al. 225

Vogel, W., see Siemen, D. 306

Vyskočil, F., see Doležal, V., et al. 319

Waelbroeck, M., see Chatelain, P., et al. 100

Watt, D. D., see Hu, S. L., et al. 90

Watt, D. D., see Wheeler, K. P., et al. 164

Waxman, S. G., see Malenka, R. C., et al. 176

Wheeler, K. P., Watt, D. D., Lazdunski, M.
Classification of Na Channel Receptors Specific for Various Scorpion Toxins 164

Williams, D. A., see Stephenson, D. G. 248

Woittiez, R. D., Huijung, P. A., Rozendal, R. H.
Influence of Muscle Architecture on the Length-Force Diagram. A Model and Its Verification 73

Yaffe, S., see Bünger, R., et al. 214

Yoshimoto, N., see Heusch, G. 284

Zumstein, A., Mathieu, O., Howald, H., Hoppeler, H.
Morphometric Analysis of the Capillary Supply in Skeletal Muscles of Trained and Untrained Subjects – Its Limitations in Muscle Biopsies 277

Indexed in Current Contents